

551.506 (261.1) WEATHER OF NORTH AMERICA AND ADJACENT OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

The following table shows the average sea-level pressure for the month at a number of land stations on the coast and islands of the North Atlantic. The readings are for 8 a. m., 75th meridian time, and the departures are only approximate, as the normals were taken from the Pilot Chart and are based on observations made at Greenwich mean noon, or 7 a. m., 75th meridian time.

Stations	Average pressure	Departure
	Inches	Inches
St. Johns, Newfoundland.....	29.91	-0.08
Nantucket.....	29.88	-0.02
Hatteras.....	30.00	-0.04
Key West.....	29.97	-0.01
New Orleans.....	30.00	+0.02
Swan Island.....	29.86	-0.05
Turks Island.....	29.99	-0.01
Bermuda.....	30.13	-0.06
Horta Azores.....	30.29	+0.09
Lerwick, Shetland Islands.....	29.67	-0.13
Valencia, Ireland.....	29.80	-0.02
London.....	29.86	-0.12

It will be noticed that the pressure at Horta was slightly above normal and at Lerwick somewhat below, indicating that the monthly average gradient between the Azores HIGH and Icelandic LOW was steeper than usual. The barometric readings at Horta ranged from 30.40 inches on the 25th to 30.08 inches on the 31st, and at Lerwick from 30.23 inches on the 8th to 29.23 inches on the 19th.

Over the middle sections of the steamer lanes the number of days on which winds of gale force were reported did not differ materially from the normal as shown on the Pilot Chart. West of the 60th meridian, however, turbulent weather was more prevalent than usual, due to the disturbances of tropical origin that swept over these waters during the latter half of the month.

Fog was reported on about 15 days over the Grand Banks, and also in the vicinity of Nantucket: it occurred on from 5 to 9 days over the northern steamer lanes, while the European coast was comparatively clear.

On the 1st moderate depressions were central near 48° N., 49° W., and 55° N., 13° W., respectively. The western LOW moved but little during the next 24 hours while on the 2d the eastern depression was over the Irish Channel, and moderate winds prevailed in both localities. On the 4th and 5th a few vessels reported moderate gales north of the 50th parallel, accompanied by comparatively high barometer readings.

On the 6th there was a disturbance central near 43° N., 40° W., that moved slowly northeastward and on the 7th was in the vicinity of 48° N., 30° W.

From the 6th to the 8th moderate gales were reported from an extensive area over the eastern section of the ocean, as shown by following storm logs:

British S. S. *Duendes*, Newport News to Liverpool:

Began on the 5th, wind NE. Lowest barometer 29.35 inches at 5 a. m. on August 6, wind S., in 43° 32' N., 40° 56' W. End on the 6th, wind WSW. Highest force of wind, 8; shifts SSE.-WSW.

Dutch S. S. *Spaar*, Montreal to Marseille:

Began on the 8th, wind E. Lowest barometer 29.84 inches at 4 p. m. on the 8th, wind E., 8, in 36° 12' N., 6° 42' W. End on the 9th, wind E. Highest force of wind 8, E.; shifts E. by S.-E.

On the 8th and 9th easterly gales prevailed off the coast of southern Europe, as shown by the following storm log: Danish S. S. *Texas*, Madeira to Copenhagen:

Began on the 9th, wind ENE., 8. Lowest barometer 30.04 inches, wind E., 9, in 44° 10' N., 9° 24' W. End on the 9th, wind ESE. Highest force of wind 10; shifts ENE.-E.-ESE.

On the 14th there was a depression near 40° N., 65° W., with moderate southerly gales in the easterly quadrants.

On the 15th a LOW appeared near 58° N., 20° W., which, traveling slowly eastward, developed into a severe disturbance, reaching its greatest intensity on the 17th, when central off the west coast of Ireland. Storm logs:

American S. S. *Saccarappa*, Galveston to Bremen:

Gale began on the 15th, wind SW., 7. Lowest barometer 29.94 inches at 4 a. m. on the 16th, wind NNW., 6, in 47° 15' N., 27° 40' W. End on the 18th, wind NNW., 6. Highest force of wind 9, SW.; shifts SW.-NNW.

German S. S. *Albert Ballin*, Hamburg to New York:

Gale began on the 16th, wind SSE. Lowest barometer 29.46 inches at 8 p. m. on the 16th, wind SW., 7, in 49° 34' N., 11° 30' W. End on the 17th, wind NW., 6. Highest force of wind 10; shifts SSE.-WSW.

On the 16th there was a depression in the vicinity of the Bermudas. Storm log:

Dutch S. S. *Barendrecht*, Rotterdam to Pensacola:

Gale began on the 16th, wind S. Lowest barometer 30.03 inches at 12:20 p. m. on the 16th, wind SW., 11, in 30° 08' N., 64° 50' W. End on the 17th, wind SW. Highest force of wind 11, SW.; steady SW.

On the 18th and 19th low pressure continued off the coast of Europe and westerly and northwesterly gales prevailed as far west as the 20th meridian. Storm logs:

German S. S. *Hannover*, Bremerhaven to New York:

Gale began on the 17th, wind SW., 6. Lowest barometer 29.36 inches at 4 a. m. on the 17th, wind SSW., 7, in 49° 57' N., 5° 12' W. End on the 19th, wind NW., 6. Highest force of wind, 9 W.; shifts W.-NNW.-NW.

From the 18th until the end of the month tropical disturbances prevailed that are described elsewhere in the REVIEW. A number of vessels were involved in these disturbances, but it is possible to quote only briefly from their reports.

The American S. S. *City of Freeport*, Spain to Cuba, encountered the first disturbance, as shown by following storm log:

Gale began on the 18th, wind ESE. Lowest barometer 29.71 inches at 5 p. m. on the 19th, wind SE., 7, in 23° 47' N., 66° 48' W. End on the 20th, wind SE. Highest force of wind 10, S. No shift of wind at time of lowest barometer; only shift occurred at 11 p. m. on the 19th.

Charts VIII to XV cover the period from the 21st to 28th, inclusive, and show the track of the tropical disturbance of that period along the American coast. Storm logs follow:

British S. S. *Mayari*, Boston to Preston and return:

Gale began on the 21st, wind NNW. Lowest barometer 29.33 inches at 2 p. m. on the 21st, wind WSW., 11, in 26° 40' N., 73° 40' W. End on the 2d, wind SW. Highest force of wind 11, WSW.; no shifts.

Swedish S. S. *Stockholm*, New York to Gothenburg:

Gale began on the 21st, wind WNW. Lowest barometer 29.53 inches at 4 a. m. on the 22d, wind NNE., 10, in 42° 02' N., 64° W. End on the 22d, wind N. Highest force of wind 10, NNE.; shifts NNW.-N.-NE.

American S. S. *Harvester*, New York to Port Arthur:

Gale began on the 24th, wind ESE. Lowest barometer 28.74 inches on the 25th, wind E., 8, in 32° N., 76° 30' W. End on the 26th, wind NW. Highest force of wind 12, ESE.; shifts E.-N.

Italian S. S. *Giuseppe Verdi*, Genoa to New York:

Gale began on the 26th, wind SE. Lowest barometer 29.11 inches at 1 p. m. on the 26th, wind SW., 12, in 39° 06' N., 68° 06' W. End at 9 p. m. on the 26th. Highest force of wind 12, SW.; shifts S.-SW.-W.

On the 29th there was a depression over Newfoundland that drifted very slowly eastward, and on the 31st was central near 47° N., 45° W. No winds of over force 6 were reported until the 31st, when vessels in the southerly quadrants reported moderate westerly gales. The British S. S. *Nitonian*, Liverpool to Kingston, encountered the second tropical disturbance, previously mentioned, as shown by following storm log.

Gale began on the 30th, wind ESE., 6. Lowest barometer 29.74 inches at 7:30 a. m. on September 1, wind S., 7, in 22° 05' N., 66° 20' W. End on September 2, wind S., 5. Highest force of wind 9, E.; shifts SE-S.

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NORTH PACIFIC OCEAN

By WILLIS EDWIN HURD

The weather was remarkably quiet over the North Pacific Ocean during August, 1924, except in the Far East. The Aleutian low was at its lowest ebb for the year and practically nonexistent, and few cyclones from Asiatic sources advanced eastward even to the 180th meridian. The lows of the higher latitudes ran farthest north this month, their tracks only occasionally lying below the 50th parallel. The region surrounding Dutch Harbor was most affected by southward-moving cyclonic conditions on the 8th and 9th, and the Gulf of Alaska on the 21st to 25th. The high-pressure area of middle latitudes over the eastern half of the ocean remained permanent through August, and gales were exceedingly rare over the entire region.

The skies along the northern steamship routes remained cloudy; misty and drizzly weather was frequent, and fog was unusually prevalent. Some trans-Pacific vessels mentioned fogs as observed daily throughout a voyage. The U. S. S. *Bear*, cruising over eastern and northern Bering Sea during the early part of August, reported almost daily fog. On leaving Unalaska on the 16th, bound for San Francisco, the *Bear* during the following five days "encountered continuous fog and mist, clearing about ship at intervals, but always present in some direction in the immediate vicinity, rolling along in sheets." Along the American coast from San Diego northward fog occurred more frequently than during any previous month of the year, and was observed on more than 60 per cent of the days between 33° and 40° N. On the 20th fog was seen in 7° N., 83° W.

Owing to the permanence of the anticyclone in west longitudes the northeast trade, as a rule, was little disturbed. At Honolulu the prevailing wind was east. The maximum five-minute velocity was at the rate of 31 miles an hour from the northeast on the 17th, and the average hourly velocity was 10.6 miles, which is the highest on record for August.

Radiographic service from Dutch Harbor was interrupted, as in July, and it is impossible to give the true monthly pressure from that place. The average of 24 days was 29.91 inches, which is slightly above normal. Pressure continued above normal at Midway Island, the average being 30.11 inches (for 30 days), whereas the normal is 30.06. The highest reading, 30.20, was recorded on the 11th; the lowest, 29.96, on the 14th. Pressure was also high at Honolulu, being 30.05 inches, a departure of +0.06 inch. Compared with the daily normals the p. m. pressure was above normal except on 2

days, the 1st and 2d, when readings were equal to the normal. This record compares with that of Midway Island in the preceding July. The highest pressure, 30.13, occurred on the 30th; the lowest, 29.94, on the 27th.

Gales from north of the 35th parallel were reported by observers on only five days of the month—the 20th, 22d, 23d, 28th, and 31st—and did not in any instance exceed force 8. East of the 180th meridian, in addition to the moderate gales of the 28th and 31st, strong winds occurred on two other days in an unusual quarter. The British S. S. *Canadian Scottish*, Capt. A. Forson, Melbourne to Vancouver, ran into a tropical disturbance on the 4th in 16° 54' N., 163° 15' W. The following quotation is from the observer, Mr. A. S. J. Geen:

4th. Moderate NE. wind, increasing to force 5 from 3 a. m. to 8 p. m., then increasing to force 6, when the barometer read 29.82; 9 p. m., 29.70, wind increasing, sea rough; 10 p. m., 29.60, wind N 8; 11 p. m., 29.53, wind still increasing. At 11:30 p. m. wind NE. x N., barometer 29.47, strong gale. At midnight various light airs and clear sky till 12:20 a. m. (5th), then wind came from S., force 9, barometer starting to rise, 1 a. m., 29.52; 2 a. m., 29.59, S. 8; 3 a. m., 29.65, S. 7; 4 a. m., 29.72, SSE. 6; from 6 a. m. to noon wind SE. 6, barometer rising to 29.89, wind then easterly 4 to midnight.

From the Far East come reports of other tropical disturbances. The article on the typhoons of August by the Rev. José Coronas, of the Philippine Weather Bureau (see p. 403), describes the movements of several of these tropical storms. The following accounts are from reports of the marine observers of the U. S. Weather Bureau:

British S. S. *Tascalusa*, Hongkong to Yokohama, Capt. P. W. Trott; observer H. A. Arrowsmith, second officer:

August 4, midnight, 30° N., 132° 09' E. Bar. 29.60, wind N. x E. 6, rough sea and rising with rain squalls; judged a typhoon was somewhere in the neighborhood. August 5, 1 a. m. Bar. 29.57, wind N. x E. 7, steady in direction, increasing in force, with heavy rain squalls. Bar. continued to fall steadily, wind to increase, with frequent heavy squalls to 10 a. m., when bar. 29.22, wind N. x E. 9, heavy sea from all directions, principally N. and E. Judged ship was on line of progression and in path of typhoon, so without further delay wind was brought on starboard quarter (using oil freely in getting ship off before wind and sea), and ship stood away to SW. Although ship was light draft, oil was freely used from forward W. C.'s with excellent results, considering the sea was from all directions, with a huge swell from E. and ship trembling and tossing fearfully. Noon, 30° N., 133° 28' E. Bar. 29.15, wind 9, squalls less frequent; sea as before, but the huge swell had shifted to ESE. 1 p. m., bar. 29.10; wind had veered to NNW, 9, and course altered to keep wind on starboard quarter. 2 p. m., bar. 29.11; wind had veered to NW. 8; sea slightly more regular from NW.; course altered as before to keep wind on starboard quarter. 4 p. m., bar. 29.18; wind WSW. 6, sea moderating rapidly, with heavy swell from ESE. 8 p. m., bar. 29.47, wind SSW. 6, strong, moderating confused sea. Ship had been steered round the compass and was now on her course.

American S. S. *West Cajoot*, Manila to San Francisco:

4th. Wind NE. 3-7, large confused swell, rough sea. At 9:08 p. m. in 30° 52' N., 137° 04' E.

5th. Wind increasing to 10-12, violent squalls, high seas, confused swell, heavy rain showers. 4 a. m., pressure lowest, 29.30, wind ENE. 12, in 31° N., 137° 19' E.

The tropical storm of August 7 to 23, described by Father Coronas as the "Loochoos typhoon" with the extraordinary track, on the 9th gave damaging floods in Taiwan, during which it was reported that 700 Japanese were drowned. A vivid account of this typhoon is furnished by Mr. S. Eriksen, second officer of the American S. S. *West Katan*, Capt. J. McAvoy, Hongkong to San Pedro:

August 10, 1924. About 10 a. m., 120th meridian time E., when vessel was passing Pakusa Pt. Lt., NW. coast of Formosa, Ci. clouds were observed extending in an E. and W. direction. Barometer 29.68, corrected, wind NNE. 2. A long, rolling, confused swell came up from the NE., and as vessel was passing the north coast of Formosa the wind freshened and a very warm breeze